

**A. CLEAN VERSION OF THE CLAIMS**

**IN THE CLAIMS:**

Please amend the claims as follows:

1. (amended) A method for managing a back-end information storage infrastructure and a flexible development environment for data storage using a computer system, comprising:
  - managing system resources including a relational database;
  - authenticating and selectively providing access to users through a directory describing predetermined user rights;
  - modeling processes to create a meta data model that encloses definitions of meta data elements and relationships among the elements using trees and graphs;
  - running the processes and generating instance data;
  - storing the instance data following the meta data model while providing management of multi-user access and concurrency; and
  - transforming the instance data into physical views.
2. (amended) A method in accordance with claim 1, further comprising optimizing the meta data model by optimally structuring the trees and graphs in the relational database.
3. (amended) A method in accordance with claim 1, wherein the relationships among the data elements are characteristic of the relationships between living organisms.

Please add the following claims:

4. A method in accordance with claim 1, further comprising expanding the meta data model, as meta data expands, without effect on current applications.
5. A method in accordance with claim 2, wherein a plurality of concurrent meta data model trees with corresponding separate instance data trees are used in the same database.

6. A method in accordance with claim 1, further comprising auditing and tracking database changes with user and date information.
7. A method in accordance with claim 1, further comprising providing for import and export of both meta data model and instance data using extensible mark-up language.
8. A method in accordance with claim 1, wherein the database is an Oracle database and the transforming of instance data into a view comprises:
  - defining of the view by the user;
  - processing the view using traditional relational Oracle tables; and
  - allowing access of the view with any SQL enabled tool.